

BBBBBBBBBBBBBB	AAAAAAA	CCCCCCCCCCCC	KKK	KKK	UUU	PPPPPPPPPPPP			
BBBBBBBBBBBBBB	AAAAAAA	CCCCCCCCCCCC	KKK	KKK	UUU	PPPPPPPPPPPP			
BBBBBBBBBBBBBB	AAAAAAA	CCCCCCCCCCCC	KKK	KKK	UUU	PPPPPPPPPPPP			
BBB	BBB	AAA	AAA	CCC	KKK	KKK	UUU	PPP	PPP
BBB	BBB	AAA	AAA	CCC	KKK	KKK	UUU	PPP	PPP
BBB	BBB	AAA	AAA	CCC	KKK	KKK	UUU	PPP	PPP
BBB	BBB	AAA	AAA	CCC	KKK	KKK	UUU	PPP	PPP
BBB	BBB	AAA	AAA	CCC	KKK	KKK	UUU	PPP	PPP
BBB	BBB	AAA	AAA	CCC	KKK	KKK	UUU	PPP	PPP
BBB	BBB	AAA	AAA	CCC	KKK	KKK	UUU	PPP	PPP
BBBBBBBBBBBBBB	AAA	AAA	CCC	KKKKKKKK	UUU	UUU	PPPPPPPPPPPP		
BBBBBBBBBBBBBB	AAA	AAA	CCC	KKKKKKKK	UUU	UUU	PPPPPPPPPPPP		
BBBBBBBBBBBBBB	AAA	AAA	CCC	KKKKKKKK	UUU	UUU	PPPPPPPPPPPP		
BBB	BBB	AAAAAAA	AAA	CCC	KKK	KKK	UUU	PPP	
BBB	BBB	AAAAAAA	AAA	CCC	KKK	KKK	UUU	PPP	
BBB	BBB	AAAAAAA	AAA	CCC	KKK	KKK	UUU	PPP	
BBB	BBB	AAA	AAA	CCC	KKK	KKK	UUU	PPP	
BBB	BBB	AAA	AAA	CCC	KKK	KKK	UUU	PPP	
BBB	BBB	AAA	AAA	CCC	KKK	KKK	UUU	PPP	
BBBBBBBBBBBBBB	AAA	AAA	CCCCCCCCCCCC	KKK	KKK	UUUUUUUUUUUUUUU	PPP		
BBBBBBBBBBBBBB	AAA	AAA	CCCCCCCCCCCC	KKK	KKK	UUUUUUUUUUUUUUU	PPP		
BBBBBBBBBBBBBB	AAA	AAA	CCCCCCCCCCCC	KKK	KKK	UUUUUUUUUUUUUUU	PPP		

FILEID**LISTJOUR

J 1

```
1 0001 0 MODULE LISTJOUR (%TITLE 'List a journal file'
2 0002 0 IDENT = 'V04-000'
3 0003 0 ) =
4 0004 1 BEGIN
5 0005 1
6 0006 1 ****
7 0007 1 ****
8 0008 1 *
9 0009 1 * COPYRIGHT (c) 1978, 1980, 1982, 1984 BY
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26 0026 1 *
27 0027 1 *
28 0028 1 ****
29 0029 1 *
30 0030 1 *
31 0031 1 ++
32 0032 1 * FACILITY:
33 0033 1 * Backup/Restore
34 0034 1 *
35 0035 1 * ABSTRACT:
36 0036 1 * This module contains the routines that list a journal file.
37 0037 1 *
38 0038 1 * ENVIRONMENT:
39 0039 1 * VAX/VMS user mode.
40 0040 1 --
41 0041 1 *
42 0042 1 * AUTHOR: M. Jack, CREATION DATE: 10-Apr-1981
43 0043 1 *
44 0044 1 * MODIFIED BY:
45 0045 1 *
46 0046 1 * V03-003 LY0490 Larry Yetto 21-MAY-1984 16:12
47 0047 1 * Modify code to allow long directory names to be output.
48 0048 1 *
49 0049 1 * V03-002 LY0464 Larry Yetto 1-FEB-1984 10:39
50 0050 1 * Add support for journal file structure level 2. This new
51 0051 1 * format add a flag longword to each file entry to enable us
52 0052 1 * to flag the fact that only a file header was saved for a
53 0053 1 * particular file.
54 0054 1 *
55 0055 1 * V03-001 ACG0313 Andrew C. Goldstein, 12-Feb-1983 16:23
56 0056 1 * Add routine subtitles
57 0057 1 *
```

LISTJOUR
V04-000

List a journal file

L 1
16-Sep-1984 00:10:02 VAX-11 Bliss-32 v4.0-742
14-Sep-1984 11:53:55 [BACKUP.SRC]LISTJOUR.B32;1

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58 0058 1 | V02-002 MLJ0036 Martin L. Jack, 28-Aug-1981 17:38
59 0059 1 | Change calling sequence to MATCH routine.
60 0060 1 |
61 0061 1 | V02-001 MLJ0025 Martin L. Jack, 8-May-1981 13:36
62 0062 1 | Implement selective journal listing.
63 0063 1 |
64 0064 1 |
65 0065 1 !**

```
67 0066 1 REQUIRE 'SRC$:COMMON';
68 1172 1 LIBRARY 'SYS$LIBRARY:STARLET';
69 1173 1 REQUIRE 'LIB$:BACKDEF';
70 1623 1
71 1624 1
72 1625 1 LINKAGE L_PS = CALL: GLOBAL(P$=11);
73 1626 1
74 1627 1
75 1628 1
76 1629 1 MACRO L_DECL = EXTERNAL REGISTER P$ = 11: REF VECTOR %;
77 1630 1
78 1631 1
79 1632 1 FORWARD ROUTINE
80 1633 1 SELECT_FILE, LIST_JOURNAL: NOVALUE; ! Evaluate selection criteria
81 1634 1 ! Driver for journal file listing
82 1635 1
83 1636 1
84 1637 1
85 1638 1 EXTERNAL ROUTINE
86 1639 1 MATCH, ! Match file specifications
87 1640 1 OPEN_JOURNAL: NOVALUE, ! Open a journal file
88 1641 1 READ_JOURNAL, ! Read a journal record
89 1642 1 CLOSE_JOURNAL: NOVALUE, ! Close a journal file
90 1643 1 LIST_FA0: L_PS NOVALUE, ! Add information to line buffer
91 1644 1 LIST_EOL: L_PS NOVALUE: ! Write line buffer to listing file
92 1645 1
93 1646 1
94 1647 1 GSDEFINE(); ! Define global common area
95 1648 1
96 1649 1
97 1650 1 MACRO
98 M 1651 1 FA0_(A)=
99 M 1652 1 LIST_FA0(
100 M 1653 1 OPLIT BYTE (%ASCIC A)
101 1654 1 %IF NOT %NULL(%REMAINING) %THEN , %FI %REMAINING) %,
102 1655 1
103 1656 1
104 M 1657 1 EOL_(A)=
105 1658 1 LIST_EOL() %;
106 1659 1
107 1660 1
108 1661 1 MACRO
109 1662 1 LIST_DESC= P$[0] %, ! Descriptor for buffer
110 1663 1 LIST_BUFFER= P$[2] %, ! Listing buffer
111 1664 1 LIST_DESC(N)= VECTOR[LIST_DESC,N] %;
112 1665 1
113 1666 1
114 1667 1 LITERAL P$SIZE= 2 + CH$ALLOCATION(LIST_SIZE);
115 1668 1
```

```
117 1669 1 %SBTTL 'SELECT_FILE - select file from journal'
118 1670 1 ROUTINE SELECT_FILE(NAME,CREDITATE)=
119 1671 1 ++
120 1672 1 FUNCTIONAL DESCRIPTION:
121 1673 1 This routine evaluates the selection criteria for a file specification
122 1674 1 retrieved from a journal file.
123 1675 1 INPUT PARAMETERS:
124 1676 1 NAME           - Descriptor for file specification "[dir]nam.typ;ver".
125 1677 1 CREDITATE      - Pointer to quadword time value.
126 1678 1 IMPLICIT INPUTS:
127 1679 1 NONE
128 1680 1 1681 1 OUTPUT PARAMETERS:
129 1682 1 NONE
130 1683 1 1684 1 IMPLICIT OUTPUTS:
131 1685 1 NONE
132 1686 1 1687 1 ROUTINE VALUE:
133 1688 1 True if the file specification is selected, false otherwise.
134 1689 1 1690 1 SIDE EFFECTS:
135 1691 1 NONE
136 1692 1 1693 1 --
137 1694 1 1695 1 BEGIN
138 1696 1 1697 1 MAP
139 1698 1 1699 1 CREDITATE:      REF VECTOR;
140 1700 1 1701 1
141 1702 1 1703 1
142 1704 1 1705 1
143 1706 1 1707 1 IF .QUAL[QUAL_BEFO] AND NOT .QUAL[QUAL_BEFO_BACK]
144 1708 1 1709 1 THEN
145 1710 1 1711 1 BEGIN
146 1712 1 1713 1 IF .CREDITATE[1] GTRU .VECTOR[QUAL[QUAL_BEFO_VALUE], 1] THEN RETURN FALSE;
147 1714 1 1715 1 IF .CREDITATE[1] EQLU .VECTOR[QUAL[QUAL_BEFO_VALUE], 1] AND .CREDITATE[0] GEQU .VECTOR[QUAL[QUAL_BEFO_VALUE]
148 1716 1 1717 1 END;
149 1718 1 1719 1
150 1720 1 1721 1
151 1722 1 1723 1
152 1724 1 1725 1 SINCE
153 1726 1
154 1727 1 IF .QUAL[QUAL_SINC] AND NOT .QUAL[QUAL_SINC_BACK]
155 1728 1 THEN
156 1729 1 BEGIN
157 1730 1 IF .CREDITATE[1] LSSU .VECTOR[QUAL[QUAL_SINC_VALUE], 1] THEN RETURN FALSE;
158 1731 1 IF .CREDITATE[1] EQLU .VECTOR[QUAL[QUAL_SINC_VALUE], 1] AND .CREDITATE[0] LSSU .VECTOR[QUAL[QUAL_SINC_VALUE]
159 1732 1 END;
160 1733 1
161 1734 1
162 1735 1 EXCLUDE
163 1736 1
```

```
174 1726 2 IF .QUAL[QUAL_EXCL]
175 1727 2 THEN
176 1728 3 BEGIN
177 1729 3 LOCAL
178 1730 3 EXCL: REF BBLOCK;
179 1731 3
180 1732 3 EXCL = .QUAL[QUAL_EXCL_LIST];
181 1733 3 WHILE .EXCL NEQ 0 DO
182 1734 4 BEGIN
183 1735 4 IF MATCH(.NAME, EXCL[QUAL_EXCL_DESC]) THEN RETURN FALSE;
184 1736 4 EXCL = .EXCL[QUAL_NEXT];
185 1737 3 END;
186 1738 2 END;
187 1739 2
188 1740 2
189 1741 2 ! SELECT
190 1742 2
191 1743 2 IF .QUAL[QUAL_SELE]
192 1744 2 THEN
193 1745 3 BEGIN
194 1746 3 LOCAL
195 1747 3 SELE: REF BBLOCK;
196 1748 3
197 1749 3 SELE = .QUAL[QUAL_SELE_LIST];
198 1750 3 IF
199 1751 4 BEGIN
200 1752 4 WHILE .SELE NEQ 0 DO
201 1753 5 BEGIN
202 1754 5 IF MATCH(.NAME, SELE[QUAL_SELE_DESC]) THEN EXITLOOP FALSE;
203 1755 5 SELE = .SELE[QUAL_NEXT];
204 1756 5 END
205 1757 4 END
206 1758 3 THEN
207 1759 3 RETURN FALSE;
208 1760 2 END;
209 1761 2
210 1762 2
211 1763 2 TRUE
212 1764 1 END;
```

.TITLE LISTJOUR List a journal file
.IDENT \V04-000\

.PSECT COMMON,NOEXE, OVR,2

00000 GLOBAL_BASE: BLKB 0
00000 FREE_LIST: BLKB 8
00008 INPUT_WAIT: BLKB 8
00010 REREAD_WAIT: BLKB 8
00018 OUTPUT_WAIT: BLKB 8
00020 JPI_UIC: BLKB 4

LISTJOUR
V04-000

List a journal file
SELECT_FILE - select file from journal

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[BACKUP.SRC]LISTJOUR.B32;1

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00024 JPI_USERNAME:
 .BLKB 12
00030 JPI_DATE:
 .BLKB 8
00038 JPI_NODE_DESC:
 .BLKB 8
00040 JPI_CURPRIV:
 .BLKB 8
00048 SYI_VERSION:
 .BLKB 4
0004C SYI_SID:.BLKB 4
00050 RWSV_HOLD_LIST:
 .BLKB 8
00058 RWSV_CRC16:
 .BLKB 64
00098 RWSV_AUTODIN:
 .BLKB 64
000D8 RWSV_FILESET_ID:
 .BLKB 8
000E0 RWSV_VOLUME_ID:
 .BLRB 12
000EC RWSV_VOL_NUMBER:
 .BLKB 2
000EE RWSV_SEG_NUMBER:
 .BLKB 2
000F0 RWSV_FILE_NUMBER:
 .BLKB 4
000F4 RWSV_SAVE_QUAL:
 .BLKB 4
000F8 RWSV_SAVE_FAB:
 .BLKB 4
000FC RWSV_CHAN:
 .BLKB 4
00100 RWSV_XOR_BCB:
 .BLKB 4
00104 RWSV_IN_SEQ:
 .BLKB 4
00108 RWSV_IN_SEQ_0:
 .BLRB 4
0010C RWSV_IN_XOR_SEQ:
 .BLRB 4
00110 RWSV_IN_XOR_RFA:
 .BLRB 6
00116 RWSV_LOOKAHEAD:
 .BLKB 1
00117 RWSV_XORSIZE:
 .BLKB 1
00118 RWSV_IN_GROUP_SIZE:
 .BLKB 4
0011C RWSV_IN_ERRORS:
 .BLKB 2
0011E RWSV_IN_XORUSE:
 .BLKB 2
00120 RWSV_IN_ORGERR:
 .BLKB 8
00128 RWSV_IN_VBN:
 .BLKB 4

0012C RWSV_IN_VBN 0:
00130 RWSV_ALLOC:
00134 RWSV_EOF:
00138 RWSV_OUT_SEQ:
0013C RWSV_OUT_VBN:
00140 RWSV_OUT_BLOCK_COUNT:
00144 RWSV_OUT_ERRORS:
00146 RWSV_SEQ_ERRORS:
00148 RWSV_OUT_GROUP_COUNT:
00149 RWSV_PADDING:
0014C QUAL: .BLKB 112
001BC COM_SSNAME:
001C4 COM_VALID_TYPES:
001C6 COM_FLAGS:
001C8 COM_PADDING:
001C9 COM_BUFF_COUNT:
001CA COM_I_SETCOUNT:
001CB COM_O_SETCOUNT:
001CC COM_I_STRUCNAME:
001D8 COM_O_STRUCNAME:
001E4 COM_O_BSRDATE:
001EC ALT_SSNAME:
0020C INPUT_FUNC:
0020D INPUT_RTYPE:
0020E OUTPUT_FUNC:
0020F FAST_STRUCLEV:
00210 INPUT_BEG:
00210 INPUT_CHAN:
00214 INPUT_FLAGS:
00214 INPUT_FLAGS:

LISTJOUR
V04-000

List a journal file
SELECT_FILE - select file from journal

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00216 INPUT_PADDING:
00218 INPUT_FAB:
0021C INPUT_NAM:
00220 INPUT_BCB:
00224 INPUT_QUAL:
00228 INPUT_BAD:
0022C INPUT_BLOCK:
00230 INPUT_MAXBLOCK:
00234 INPUT_MEDIA_ID:
00238 INPUT_NAMEDESC:
00240 INPUT_STATBLK:
00248 INPUT_HDR_BEG:
00248 INPUT_CRDATE:
00250 INPUT_REVDATE:
00258 INPUT_EXPDATE:
00260 INPUT_BAKDATE:
00268 INPUT_FILEOWNER:
0026C INPUT_FILECHAR:
00270 INPUT_RECATTR:
00290 INPUT_HDR_END:
00290 INPUT_END:
00290 INPUT_PROC_LIST:
00294 INPUT_PLACEMENT:
0029C INPUT_VBN_LIST:
002A4 INPUT_PLACE_LEN:
002A6 INPUT_PADDING_2:
002A8 OUTPUT_BEG:
002A8 OUTPUT_CHAN:
002AC OUTPUT_FLAGS:

LISTJOUR
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List a journal file
SELECT_FILE - select file from journal

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002AE OUTPUT_PADDING: .BLKB 2
002B0 OUTPUT_FAB: .BLKB 2
002B4 OUTPUT_NAM: .BLKB 4
002B8 OUTPUT_BCB: .BLKB 4
002BC OUTPUT_QUAL: .BLKB 4
002C0 OUTPUT_BAD: .BLKB 4
002C4 OUTPUT_BLOCK: .BLKB 4
002C8 OUTPUT_MAXBLOCK: .BLKB 4
002CC OUTPUT_DEVGEOM: .BLKB 8
002D4 OUTPUT_ATTBUF: .BLKB 144
00364 OUTPUT_END: .BLKB 0
00364 LIST_TOTFILES: .BLKB 4
00368 LIST_TOTSIZE: .BLKB 4
0036C VERIFY_FAB: .BLKB 4
00370 VERIFY_USE_COUNT: .BLKB 4
00374 VERIFY_QUAL: .BLKB 4
00378 COMPARE_BCB: .BLKB 4
0037C FAST_BUFFER: .BLKB 4
00380 FAST_BUFFER_SIZE: .BLRB 4
00384 FAST_RVN: .BLKB 1
00385 FAST_PADDING: .BLKB 1
00386 DIR_VERLIMIT: .BLKB 2
00388 FAST_VOL_BEG: .BLKB 0
00388 FAST_IMAP_SIZE: .BLKB 4
0038C FAST_IMAP: .BLKB 4
00390 FAST_HDR_OFFSET: .BLKB 4
00394 FAST_BOOT_LBN: .BLKB 4
00398 FAST_VOL_END: .BLKB 0

LISTJOUR
V04-000

List a journal file
SELECT_FILE - select file from journal

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00398 JOUR_BUFFER:
.BLKB 4
0039C JOUR_DIR:
.BLKB 4
003A0 JOUR_HIBLK:
.BLKB 4
003A4 JOUR_EFBLK:
.BLKB 4
003AB JOUR_INBLK:
.BLKB 4
003AC JOUR_FFBYTE:
.BLKB 2
003AE JOUR_INBYTE:
.BLKB 2
003B0 JOUR_STRUCTLEV:
.BLKB 2
003B2 JOUR_COUNT:
.BLKB 1
003B3 JOUR_REVERSE:
.BLKB 1
003B4 JOUR_EXSZ:
.BLKB 2
003B6 JOUR_PADDING:
.BLKB 2
003B8 CHKP_HIGHSR:
.BLKB 4
003BC CHKP_LOWSR:
.BLKB 4
003C0 CHKP_STACK:
.BLKB 4
003C4 CHKP_VARS:
.BLKB 4
003C8 CHKP_STATUS:
.BLKB 4
003CC DIR_BEG:.BLKB 0
003CC DIR_CHAN:
.BLKB 4
003D0 DIR_NAM:.BLKB 4
003D4 DIR_DEV_DESC:
.BLKB 4
003DB DIR_SEL_DIR:
.BLKB 8
003E0 DIR_SEL_NTV:
.BLKB 8
003E8 DIR_STRUCTLEV:
.BLKB 1
003E9 DIR_LEVELS:
.BLKB 1
003EA DIR_FLAGS:
.BLKB 1
003EB DIR_STATUS:
.BLKB 1
003EC DIR_STRING:
.BLKB 320
0052C DIR_STACK:
.BLKB 612
00790 DIR_SP: .BLKB 4

00794	DIR_SEL_LATEST:	
		.BLKB
00798	DIR_END:	.BLKB
00798	DIR_SCANLIMIT:	.BLKB
		36
007BC	INPUT_MTL:	
		.BLKB
007C0	OUTPUT_MTL:	
		.BLKB
007C4	CURRENT_MTL:	
		.BLKB
007C8	CURRENT_VCB:	
		.BLKB
007CC	CURRENT_WCB:	
		.BLKB
007D0	ACL_FIB_DESCR:	
		.BLKB
007D8	ACL_FIB:	.BLKB
00818	ACL_LENGTH:	
		.BLKB
0081C	ACL_BUFFER:	
		.BLKB
00820	CRYP_IN_CONTEXT:	
		.BLKB
00824	CRYP_OUT_CONTEXT:	
		.BLKB
00828	CRYP_DA_CONTEXT:	
		.BLKB
0082C	CRYP_DATA_ENCIV:	
		.BLKB
00834	CRYP_DATA_CODE:	
		.BLKB
00838	CRYP_DATA_KEY:	
		.BLKB
00840	CRYP_DATA_IV:	
		.BLKB
00848	CRYP_DATA_CKSM:	
		.BLKB
		4

.EXTRN MATCH, OPEN_JOURNAL
.EXTRN READ_JOURNAL, CLOSE_JOURNAL
.EXTRN LIST_FAQ, LIST_EOL

.PSECT CODE,NOWRT,2

001C 00000 SELECT_FILE:									
17	54	00000000G	00	9E	00002	.WORD	Save R2, R3, R4	1670	
13	53	00000000	EF	9E	00009	MOVAB	MATCH R4		
	63		02	E1	00010	MOVAB	QUAL+8, R3		
	63		03	E0	00014	BBC	#2, QUAL+8, 1S	1706	
	50	08	AC	D0	00018	BBS	#3, QUAL+8, 1S		
	0C	A3	04	A0	D1	0001C	MOVL	CRÉDATE, R0	1709
				5D	1A	00021	CMPL	4(R0), QUAL+20	
					06	12	BGTRU	6S	
	08	A3				00023	BNEQ	1S	1710
					60	D1	CMPL	(R0), QUAL+16	
					55	1E	BGEQU	6S	

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V04-000List a journal file
SELECT_FILE - select file from journalI 2
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18	05	A3	04	E1	00028	1\$:	BBC	#4, QUAL+13, 2\$	1716	
13	05	A3	05	E0	00050		BBS	#5, QUAL+13, 2\$		
	50		08	AC	00035		MOVL	CRÉDATE, R0	1719	
1C	A3	04	A0	D1	00039		CMPL	4(R0), QUAL+36		
			40	1F	0003E		BLSSU	6\$		
18	A3		06	12	00040		BNEQ	2\$	1720	
			60	D1	00042		CMPL	(R0), QUAL+32		
			38	1F	00046		BLSSU	6\$		
17	01	A3	04	E1	00048	2\$:	BBC	#4, QUAL+9, 4\$	1726	
	52		28	A3	D0	0004D	MOVL	QUAL+48, EXCL	1732	
				11	13	00051	BEQL	4\$	1733	
			04	A2	9F	00053	PUSHAB	4(EXCL)	1735	
			04	AC	DD	00056	PUSHL	NAME		
	64			02	FB	00059	CALLS	#2, MATCH	1736	
	21			50	E8	0005C	BLBS	R0, 6\$		
	52			62	D0	0005F	MOVL	(EXCL), EXCL	1733	
				ED	11	00062	BRB	3\$	1733	
1A	05	A3	03	E1	00064	4\$:	BBC	#3, QUAL+13, 7\$	1743	
	52		3C	A3	D0	00069	MOVL	QUAL+68, SELE	1749	
				11	13	0006D	BEQL	6\$	1752	
			04	A2	9F	0006F	PUSHAB	4(SELE)	1754	
			04	AC	DD	00072	PUSHL	NAME		
	64			02	FB	00075	CALLS	#2, MATCH	1755	
	08			50	E8	00078	BLBS	R0, 7\$		
	52			62	D0	0007B	MOVL	(SELE), SELE	1752	
				ED	11	0007E	BRB	5\$	1759	
				50	D4	00080	CLRL	R0		
				04	00082		RET			
	50			01	D0	00083	7\$:	MOVL	#1, R0	1764
				04	00086		RET			

; Routine Size: 135 bytes, Routine Base: CODE + 0000

```
1765 1 %SBTTL 'LIST_JOURNAL - main journal list routine'  
1766 1 GLOBAL ROUTINE LIST_JOURNAL: NOVALUE=  
1767 1 !++  
1768 1  
1769 1  
1770 1  
1771 1  
1772 1  
1773 1  
1774 1  
1775 1  
1776 1  
1777 1  
1778 1  
1779 1  
1780 1  
1781 1  
1782 1  
1783 1  
1784 1  
1785 1  
1786 1  
1787 1  
1788 1  
1789 1  
1790 1  
1791 1 !--  
1792 1  
1793 2 BEGIN  
1794 2 LITERAL  
1795 2 STR_LENGTH = %CHARCOUNT(' file header only'),  
1796 2 BUFFER_LENGTH = BJL$C_DIR_LEN + BJL$S_FILENAME + STR_LENGTH ;  
1797 2  
1798 2  
1799 2 LOCAL  
1800 2 STR: LONG INITIAL(UPLIT BYTE (' file header only'))  
1801 2 FAB: REF BBLOCK, ! Pointer to FAB for journal file  
1802 2 BUFFER: BBLOCK[BUFFER_LENGTH], ! Record buffer  
1803 2 SSNAME_LEN: LONG INITIAL(0), ! Length of SSNAME  
1804 2 SSNAME: BBLOCK[BJL$C_SSNAME_LEN], ! SSNAME buffer  
1805 2 VOLUME: BBLOCK[BJL$C_VOLUME_LEN], ! VOLUME buffer  
1806 2 DIR_LEN: LONG INITIAL(0), ! Length of DIRECTORY  
1807 2 DIRECTORY: BBLOCK[BJL$C_DIR_LEN], ! DIRECTORY buffer  
1808 2 CHANGE, ! True if SSNAME or VOLUME changed  
1809 2 PSAREA: VECTOR[P$SIZE]; ! Impure area  
1810 2 GLOBAL REGISTER  
1811 2 PS = 11: REF VECTOR; ! Impure area base register  
1812 2  
1813 2  
1814 2 ! Initialize impure area.  
1815 2  
1816 2 PS = PSAREA;  
1817 2 LIST_DESC[0] = LIST_SIZE;  
1818 2 LIST_DESC[1] = _LIST_BUFFER;  
1819 2  
1820 2  
1821 2 ! Do the listing.
```

```
271      1822 2 !
272      1823 2 OPEN_JOURNAL(FALSE, FALSE);
273      1824 2
274      1825 2
275      1826 2 ! Heading.
276      1827 2
277      1828 2 FAB = .QUAL[QUAL_JOUR_FC];
278      P 1829 2 FAO_('Journal file !AD on !%D',
279      P 1830 2     .BBLOCK[FAB[FC_NAM], NAMSB_RSL],
280      P 1831 2     .BBLOCK[FAB[FC_NAM], NAMSL_RSA],
281      1832 2     0);
282      1833 2 EOL_();
283      1834 2
284      1835 2
285      1836 2 ! Read all records of the journal file to produce the listing.
286      1837 2
287      1838 2 CHANGE = FALSE;
288      1839 2 WHILE READ_JOURNAL(BUFFER) DO
289      1840 3   BEGIN
290      1841 3     CASE .BUFFER[BJL$B_TYPE] FROM BJL$K_SSNAME TO BJL$K_FILE OF
291      1842 3       SET
292      1843 3
293      1844 3
294      1845 3   [BJL$K_SSNAME]:
295      1846 4     BEGIN
296      1847 4       ! Save the SSNAME record in a local.
297      1848 4
298      1849 4     IF .BUFFER[BJL$B_SIZE] LEQU BJL$C_SSNAME_LEN+1
299      1850 4
300      1851 4     THEN
301      1852 5       BEGIN
302      1853 5       SSNAME_LEN = .BUFFER[BJL$B_SIZE] - 1;
303      1854 5       CH$MOVE(.SSNAME_LEN, BUFFER[BJL$B_DATA], SSNAME);
304      1855 5       CHANGE = TRUE;
305      1856 4       END;
306      1857 3     END;
307      1858 3
308      1859 3
309      1860 3   [BJL$K_VOLUME]:
310      1861 4     BEGIN
311      1862 4       ! Save the VOLUME record in a local.
312      1863 4
313      1864 4     IF .BUFFER[BJL$B_SIZE] EQLU BJL$C_VOLUME_LEN+1
314      1865 4
315      1866 4     THEN
316      1867 5       BEGIN
317      1868 5       CH$MOVE(BJL$C_VOLUME_LEN, BUFFER[BJL$B_DATA], VOLUME);
318      1869 5       CHANGE = TRUE;
319      1870 4       END;
320      1871 3     END;
321      1872 3
322      1873 3
323      1874 3   [BJL$K_DIRECTORY]:
324      1875 4     BEGIN
325      1876 4       ! Save the DIRECTORY record in a local.
326      1877 4
327      1878 4
```

```
328      1879  4      IF .BUFFER[BJL$B_SIZE] LEQU BJL$C_DIR_LEN+1
329      1880  4      THEN
330      1881  5      BEGIN
331      1882  5      DIR_LEN = .BUFFER[BJL$B_SIZE] - 1;
332      1883  5      CHSMOVE(.DIR_LEN, BUFFER[BJL$B_DATA], DIRECTORY);
333      1884  4      END;
INFO#252          L1:1879
Test expression is always true
334      1885  3      END;
335      1886  3
336      1887  3
337      1888  3      [BJL$K_FILE]:
338      1889  4      BEGIN
339      1890  4      LOCAL
340      1891  4      BUFF_SIZE      : WORD
341      1892  4      BUFF_FLAGS    : BBLOCK[4]
342      1893  4      NAME_DESC     : VECTOR[2]; ! Descriptor for name string
343      1894  4
344      1895  4
345      1896  4      BUFF_SIZE = .BUFFER [ BJL$B_SIZE ];
346      1897  4
347      1898  4      IF .JOUR_STRUCT_LEVEL GTRU BJL$K_LEVEL1
348      1899  4      THEN
349      1900  5      BEGIN
350      1901  5      ! Adjust the name size to remove the flag longword
351      1902  5
352      1903  5      BUFF_SIZE = .BUFF_SIZE - 4 ;
353      1904  5
354      1905  5      ! Get the flags longword ( size +1 to skip size field )
355      1906  5
356      1907  5      BUFF_FLAGS = .BUFFER [.BUFF_SIZE+1,0,32,0] ;
357      1908  5      END
358      1909  4      ELSE
359      1910  4      BUFF_FLAGS = 0 ;
360      1911  4
361      1912  4      ! Assemble the complete name string.
362      1913  4
363      1914  4      NAME_DESC[1] = BUFFER[0,0,0,0];
364      1915  4      NAME_DESC[0] = .BUFF_SIZE
365      1916  4      - 1           ! Adjust for size field
366      1917  4      + DIR_LEN    ! Add in directory name length
367      1918  4      + 2 ;        ! Adjust for "[]"
368      1919  4
369      1920  4      CHSCOPY(
370      1921  4      .BUFF_SIZE - 1,
371      1922  4      BUFFER[BJL$B_DATA],
372      1923  4      %C'
373      1924  4      BUFFER + BUFFER_LENGTH - BUFFER[.DIR_LEN+2,0,0,0],
374      1925  4      BUFFER[.DIR_LEN+2,0,0,0]);
375      1926  4      CHSMOVE(
376      1927  4      .DIR_LEN,
377      1928  4      DIRECTORY,
378      1929  4      BUFFER[1,0,0,0]);
379      1930  4      BUFFER[0,0,8,0] = %C '[';
380      1931  4      BUFFER[.DIR_LEN+1,0,8,0] = %C ']';
381      1932  4
382      1933  4      IF .BUFF_FLAGS[BJL$V_HEADONLY]
```

```
383 1934 4      THEN
384 1935 5      BEGIN
385 1936 5      CH$COPY ( STR_LENGTH,
386 1937 5          .STR,
387 1938 5          %C,
388 1939 5          BUFFER_LENGTH - .NAME_DESC[0],
389 1940 5          BUFFER[.NAME_DESC[0],0,8,0]);
390 1941 5          NAME_DESC[0] = .NAME_DESC[0] + STR_LENGTH ;
391 1942 4      END;
392 1943 4
393 1944 4      ! Write the name string, if the selection criteria are satisfied.
394 1945 4
395 1946 4      IF SELECT_FILE(NAME_DESC, SSNAME[BJL$Q_CREDIT])
396 1947 4      THEN
397 1948 5          BEGIN
398 1949 5
399 1950 5          ! If the save set or the volume number has changed since the
400 1951 5          last line, write the new information.
401 1952 5
402 1953 5          IF .CHANGE
403 1954 5          THEN
404 1955 6          BEGIN
405 1956 6          EOL();
406 1957 6          FAO_(
407 1958 6          'Save set !AD created on !%D'
408 1959 6          .SSNAME_LEN - $BYTEOFFSET(BJL$T_SSNAME),
409 1960 6          SSNAME[BJL$T_SSNAME],
410 1961 6          SSNAME[BJL$Q_CREDIT]);
411 1962 6
412 1963 6          EOL();
413 1964 6          FAO_(
414 1965 6          'Volume number !UW, volume label !AD',
415 1966 6          .VOLUME[BJL$W_VOLNUMBER],
416 1967 6          BJL$S_VOLNAME,
417 1968 6          (IF .?VOLUME[BJL$T_VOLNAME]<0,8> GTRU %C'
418 1969 6          THEN VOLUME[BJL$T_VOLNAME]
419 1970 6          ELSE UPLIT BYTE ('Unknown      '));
420 1971 6          EOL();
421 1972 5          CHANGE = FALSE;
422 1973 5
423 1974 5
424 1975 5      ! Write the file specification.
425 1976 5
426 1977 5      FAO_('    !AS', NAME_DESC);
427 1978 5      EOL();
428 1979 4      END;
429 1980 3
430 1981 3
431 1982 3
432 1983 3      [INRANGE, OUTRANGE]:
433 1984 3          0;
434 1985 3
435 1986 3
436 1987 3      TES;
437 1988 2      END;
438 1989 2      CLOSE_JOURNAL(FALSE);
439 1990 1      END;
```

6E	6F	20	72	65	64	61	65	68	20	65	6C	69	66	20	00087	P.AAA:	.ASCII	\ file header only\
21	20	65	6C	69	66	20	6C	61	6E	72	75	6F	4A	17	00098	P.AAB:	.ASCII	<23>\Journal file !AD on !%D\
63	20	44	41	21	20	74	65	73	20	65	76	61	53	1B	000B0	P.AAC:	.ASCII	<27>\Save set !AD created on !%D\
20	72	65	62	6D	75	6E	20	65	6D	75	6C	6F	56	23	000CC	P.AAD:	.ASCII	\#Volume number !UW, volume label !AD\
62	61	6C	20	65	6D	75	6C	6F	76	20	2C	57	55	21	000DB			
									44	41	21	20	6C	65	000EA			
									20	20	20	20	20	20	000F0	P.AAE:	.ASCII	\unknown \
									53	41	21	20	20	20	000FC	P.AAF:	.ASCII	<7>\ !AS\

		OFFC 00000				.ENTRY	LIST JOURNAL, Save R2,R3,R4,R5,R6,R7,R8,R9,-; 1766	
		5E	FC28	CE	9E 00002	MOVAB	-984(SP), SP	1793
		5A	FF78	CF	9E 00007	MOVAB	P.AAA, STR	
				59	D4 0000C	CLRL	SSNAME_LEN	
				56	D4 0000E	CLRL	DIR_LEN	
		5B	08	AE	9E 00010	MOVAB	PSAREA, P\$	1816
		6B	0100	8F	3C 00014	MOVZWL	#256 (P\$)	1817
	04	AB	08	AB	9E 00019	MOVAB	8(R11), 4(P\$)	1818
				7E	7C 0001E	CLRQ	-(SP)	1823
		00000000G	00	02	FB 00020	CALLS	#2, OPEN_JOURNAL	
			50 00000000	EF	D0 00027	MOVL	QUAL+52, -FAB	1828
				7E	D4 0002E	CLRL	-(SP)	1832
			0098	CO	DD 00030	PUSHL	152(FAB)	
			0097	CO	9A 00034	MOVZBL	151(FAB), -(SP)	
		00000000G	00	FF57	CF 9F 00039	PUSHAB	P.AAB	
				04	FB 0003D	CALLS	#4, LIST_FAQ	
		00000000G	00		00 FB 00044	CALLS	#0, LIST_EOL	1833
				57	D4 0004B	CLRL	CHANGE	1838
		00000000G	00	FE70	CD 9F 0004D	1\$: PUSHAB	BUFFER	1839
			03	01	FB 00051	CALLS	#1, READ_JOURNAL	
				50	E8 00058	BLBS	R0, 2\$	
	03	0036	0022	0140	31 0005B	BRW	16\$	
0047			FE71	CD	8F 0005E	2\$: CASEB	BUFFER+1, #1, #3	1841
				000A	00064	3\$: .WORD	4\$-3\$,-	
							5\$-3\$,-	
							7\$-3\$,-	
							8\$-3\$	
			29	FE70	DF 11 0006C	4\$: BRB	1\$	
					CD 91 0006E	CMPB	BUFFER, #41	1850
			59	FE70	D8 1A 00073	BGTRU	1\$	
					CD 9A 00075	MOVZBL	BUFFER, SSNAME_LEN	1853
FE48	CD	FE72	CD		59 D7 0007A	DECL	SSNAME_LEN	
					59 28 0007C	MOVC3	SSNAME_LEN, BUFFER+2, SSNAME	1854
			OF	FE70	OF 11 00084	BRB	6\$	1855
					CD 91 00086	5\$: CMPB	BUFFER, #15	1865
FE38	CD	FE72	CD		CO 12 0008B	BNEQ	1\$	
					0E 28 0008D	MOVC3	#14, BUFFER+2, VOLUME	1868
			57		01 D0 00095	6\$: MOVL	#1, CHANGE	1869
					B3 11 00098	BRB	1\$	1841

LIST JOUR
V04-000

List a journal file
LIST_JOURNAL - main journal list routine

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0110	CE	FE72	CD	56	FE70	CD	9A	0009A	7\$:	MOVZBL	BUFFER, DIR_LEN	1882
				56		D7	0009F		DECL	DIR_LEN		1883
				56		28	000A1		MOV C3	DIR_LEN, BUFFER+2, DIRECTORY		1841
				A2		11	000A9		BRB	1\$		1896
0101		51	FE70	CD	9B	000AB	8\$:		MOVZBW	BUFFER, BUFF_SIZE		1898
		8F	00000000	EF		B1	000B0		CMPW	JOUR_STRUCT_EV, #257		
				10		1B	000B9		BLEQU	9\$		
		51		04		A2	000BB		SUBW2	#4, BUFF_SIZE		1903
		50		51		3C	000BE		MOVZWL	BUFF_SIZE, R0		1907
		58	FE71	CD40	9F	000C1			PUSHAB	BUFFER+1[R0]		
				9E		D0	000C6		MOVL	@(SP)+, BUFF_FLAGS		
				02		11	000C9		BRB	10\$		1898
		04	AE	FE70	CD	9E	000CD	9\$:	CLRL	BUFF_FLAGS		1910
		50		51		3C	000D3	10\$:	MOVAB	BUFFER, NAME_DESC+4		1914
		6E		01	A640	9E	000D6		MOVZWL	BUFF_SIZE, R0		1916
				50		D7	000DB		MOVAB	1(DIR_LEN)[R0], NAME_DESC		1918
		51		6D		9E	000DD		DECL	R0		1921
		52	FE72	CD46	9E	000EO			MOVAB	BUFFER+400, R1		1924
		51		52	C2	000E6			MOVAB	BUFFER+2[DIR_LEN], R2		
51	20	FE72	CD	50	2C	000E9			SUBL2	R2, R1		
				50	2C	000E9			MOVC5	R0, BUFFER+2, #32, R1, (R2)		1925
	FE71	CD	0110	CE	56	28	000F1		MOVC3	DIR_LEN, DIRECTORY, BUFFER+1		1929
		FE70	CD		5B	8F	90	000F9	MOV B	#91, BUFFER		1930
		FE71	CD46		5D	8F	90	000FF	MOV B	#93, BUFFER+1[DIR_LEN]		1931
		18			58	E9	00106		BLBC	BUFF_FLAGS, 11\$		1933
51	00000190	8F			6E	C3	00109		SUBL3	NAME_DESC #400, R1		1939
		50	FE70	CD	9E	00111			MOVAB	BUFFER, R0		1940
51	20	6A		11	2C	00116			MOVC5	#17, (STR), #32, R1, @NAME_DESC[R0]		
			00	BE40		0011B			ADDL2	#17, NAME_DESC		1941
		6E			11	C0	0011E		PUSHAB	SSNAME		1946
			FE48	CD	9F	00121	11\$:		PUSHAB	NAME_DESC		
			04	AE	9F	00125			CALLS	#2, SELECT_FILE		
	FDCF	CF			02	FB	00128		BLBC	R0, 15\$		
	6B				50	E9	0012D		BLBC	CHANGE, 14\$		1953
	54				57	E9	00130		CALLS	#0, LIST_EOL		1956
	00000000G	00			00	FB	00133		PUSHAB	SSNAME		1961
			FE48	CD	9F	0013A			PUSHAB	SSNAME+8		
			FE50	CD	9F	0013E			PUSHAB	-8(SSNAME_LEN)		
			F8	A9	9F	00142			PUSHAB	P.AAC		
			FE63	CF	9F	00145			CALLS	#4, LIST_FA0		
	00000000G	00			04	FB	00149		CALLS	#0, LIST_EOL		1962
	00000000G	00			00	FB	00150		CMPB	VOLUME, #32		1969
		20	FE38	CD	91	00157			BLEQU	12\$		
				07	1B	0015C			MOVAB	VOLUME, R0		
		50	FE38	CD	9E	0015E			BRB	13\$		
				05	11	00163			MOVAB	P.AAE, R0		
		50	FE83	CF	9E	00165	12\$:		PUSHL	R0		
				50	DD	0016A	13\$:		PUSHL	#12		
				0C	DD	0016C			MOVZWL	VOLUME+12, -(SP)		
		7E	FE44	CD	3C	0016E			PUSHAB	P.AAD		
			FE51	CF	9F	00173			CALLS	#4, LIST_FA0		
	00000000G	00			04	FB	00177		CALLS	#0, LIST_EOL		1970
	00000000G	00			00	FB	0017E		CLRL	CHANGE		1971
				57	D4	00185			PUSHL	SP		1977
				5E	DD	00187	14\$:		PUSHAB	P.AAF		

LISTJOUR
V04-000

List a journal file
LIST_JOURNAL - main journal list routine

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00000000G 00	02 FB 0018D	CALLS #2, LIST_FAQ	
00000000G 00	00 FB 00194	CALLS #0, LIST_EOL	; 1978
	FEAF 31 0019B 15\$:	BRW 1\$; 1839
	7E D4 0019E 16\$:	CLRL -(SP)	; 1989
00000000G 00	01 FB 001A0	CALLS #1, CLOSE_JOURNAL	
	04 001A7	RET	; 1990

; Routine Size: 424 bytes, Routine Base: CODE + 0104

LISTJOUR
V04-000

List a journal file
LIST_JOURNAL - main journal list routine

D 3
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: 441 1991 1 END
: 442 1992 0 ELUDOM

PSECT SUMMARY

Name	Bytes	Attributes
COMMON CODE	2124 NOVEC, WRT, RD ,NOEXE,NOSHR, LCL, REL, OVR,NOPIC,ALIGN(2)	
	684 NOVEC,NOWRT, RD , EXE,NOSHR, LCL, REL, CON,NOPIC,ALIGN(2)	

Library Statistics

File	-----	Symbols	-----	Pages	Processing
	Total	Loaded	Percent	Mapped	Time
\$_\$255\$DUA28:[SYSLIB]STARLET.L32;1	9776	6	0	581	00:01.1

: Information: 1
: Warnings: 0
: Errors: 0

COMMAND QUALIFIERS

: BLISS/CHECK=(FIELD,INITIAL,OPTIMIZE)/LIS=LISS:LISTJOUR/OBJ=OBJ\$:LISTJOUR MSRC\$:LISTJOUR/UPDATE=(ENH\$:LISTJOUR)

: Size: 559 code + 2249 data bytes
: Run Time: 00:23.3
: Elapsed Time: 01:21.8
: Lines/CPU Min: 5120
: Lexemes/CPU-Min: 45974
: Memory Used: 313 pages
: Compilation Complete

0012 AH-BT13A-SE
VAX/VMS V4.0

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